

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

Purpose: To require a study of new concepts for cost-effective, carbon-effective, efficient, and flexible energy systems.

**IN THE SENATE OF THE UNITED STATES—110th Cong., 1st Sess.**

**S. 2191**

To direct the Administrator of the Environmental Protection Agency to establish a program to decrease emissions of greenhouse gases, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and  
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. CRAIG

Viz:

1       At the end of title IX, add the following:

2   **SEC. 90 \_\_\_\_ . NEW CONCEPTS FOR COST-EFFECTIVE, CAR-**  
3                   **BON-EFFECTIVE, EFFICIENT, AND FLEXIBLE**  
4                   **ENERGY SYSTEMS.**

5       (a) STUDY.—

6           (1) IN GENERAL.—The Secretary of Energy  
7       shall conduct a study to evaluate advanced concepts  
8       for improving the cost effectiveness, carbon effective-  
9       ness (as measured by comparative lifecycle carbon

1 assessments), energy production efficiency, energy  
2 use efficiency, flexibility, and security of energy sys-  
3 tems in the United States.

4 (2) INCLUSIONS.—The study under this sub-  
5 section shall include—

6 (A) a specific evaluation of new ways that  
7 nuclear power and renewable resources can con-  
8 tribute to the improvements described in para-  
9 graph (1), including—

10 (i) the uses of nuclear process heat  
11 for transformations of fossil fuels and car-  
12 bon dioxide recycling;

13 (ii) the uses of nuclear power to speed  
14 the deployment of plug-in hybrid vehicles;

15 (iii) innovative ways to use biomass to  
16 reduce the lifecycle carbon cost of using  
17 fossil energy for electricity, heat, and  
18 transportation fuels;

19 (iv) the potential to use waste carbon  
20 dioxide as a heat transfer fluid for geo-  
21 thermal energy; and

22 (v)(I) all technology strategies that  
23 have the potential to enable the trans-  
24 formation of waste carbon dioxide into a  
25 valuable energy commodity; and

1 (II) an estimation of the approximate  
2 carbon cost needed to justify deployment of  
3 those strategies at the current state of  
4 commercial development of the strategies;  
5 and

6 (B) an evaluation of such additional con-  
7 cepts as the Secretary determines to be appro-  
8 priate.

9 (3) CLARIFICATION.—The study under this  
10 subsection—

11 (A) shall not include an evaluation of indi-  
12 vidual technologies; but

13 (B) shall include an evaluation of the  
14 means by which multiple energy technologies  
15 could work in concert to achieve the improve-  
16 ments described in paragraph (1).

17 (b) REPORT.—The Secretary of Energy shall submit  
18 to Congress—

19 (1) by not later than 1 year after the date of  
20 enactment of this Act, an interim report describing  
21 the results of the study under subsection (a) ob-  
22 tained during the preceding calendar year; and

23 (2) by not later than 2 years after the date of  
24 enactment of this Act, a final report describing the  
25 results of the study under subsection (a).